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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/681,682	05/21/2001	Edgar N. Rudisill	SS3161USNA	4206
23906	7590	02/13/2004	EXAMINER	
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			MUSSER, BARBARA J	
			ART UNIT	PAPER NUMBER
			1733	

DATE MAILED: 02/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/681,682	RUDISILL ET AL.	
	Examiner	Art Unit	
	Barbara J. Musser	1733	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-5 and 8-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 8-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>02/04</u> . |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3-5, and 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Groten et al. in view of Allen (U.S. Patent 6,182,732), and Buehning et al.

Groten et al. discloses contacting two polymer streams outside a die tip so that multi-components fibers are formed but does not disclose the specifics of the remainder of the apparatus.(Col. 3, ll. 32-67) While Groten et al. is directed to spunbond fibers, one in the art would appreciate that when fabrics having fibers with the characteristics of Groten et al. which are soft with good hand were desired a melt-blown web rather than a spunbond web would be desirable.(Allen et al., Col. 1, ll. 56-61) Allen et al. shows how a spunbond apparatus can be changed into a melt-blown apparatus simply by exchanging one die element.(Col. 2, ll. 29-36; Figure 4-8) The polymer stream enters a coat-hanger die and then is fed into spinnerets.(Figures 6 and 7) However, Allen et al. does not disclose a filter within the apparatus.

Buehning discloses an apparatus for forming melt-blown fibers wherein a filter is located after the coat-hanger die to reduce the viscosity of the polymer.(Col. 5, ll. 32-37; Figure 4) It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to use the apparatus of Allen et al. to make a melt-blown fibers with the characteristics of Groten et al. since this would allow either spunbond or meltblown fibers to be formed from the same apparatus and to place a filter after the coat hanger die since filters are needed to remove clogs from the polymer stream and since placing it after the coat-hanger die would reduce the viscosity of the polymer before it entered the lower part of the die.(Buehning et al., Col. 5, ll. 32-37).

Regarding claims 3 and 8, Groten et al. is directed to using two polymers.

Regarding claims 4 and 9, while the references as directed to using two polymers, one in the art would appreciate that the same process could be used to form polymer fibers with three different polymers. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the apparatus of Groten et al, and Allen, and Buehning et al. to use three polymers as the extrusion of three polymer fibers is well-known and conventional in the fiber forming art.

Response to Arguments

3. Applicant's arguments with respect to all the claims have been considered but are moot in view of the new ground(s) of rejection.

Regarding applicant's suggestion in the interview that the polymer streams remain planar after exiting the filter, examiner can find no clear mention of this in the specification. Additionally, the polymer stream of Allen et al. is a planar stream after it exits the coat hanger die, which is where the filter is placed.

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Regarding applicant's argument that Groten et al. is a spunbond apparatus, Allen indicates that those in the art know how to change spunbond equipment to form melt-blown fibers and why melt-blown fibers would be desired in some situations.

It is noted that claim 1 does not require the formation of melt-blown fibers.

Response to Amendment

The declaration filed on 1/7/04 under 37 CFR 1.131 is sufficient to overcome the Allen et al.(U.S. Pub. 2002/0125601A1) reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Barbara J. Musser** whose telephone number is **(571) 272-1222**. The examiner can normally be reached on Monday-Thursday; alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571)-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 703-372-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

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For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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